

NON-PUBLIC?: N  
ACCESSION #: 9206260213  
LICENSEE EVENT REPORT (LER)

FACILITY NAME: Callaway Plant Unit 1 PAGE: 1 OF 4

DOCKET NUMBER: 05000483

TITLE: Reactor Trip On Low Level Steam Generator 'C' Due To A Failed  
Relay Driver Card Which Caused A Feedwater Isolation Valve To  
Fast Close

EVENT DATE: 05/23/92 LER #: 92-007-00 REPORT DATE: 06/22/92

OTHER FACILITIES INVOLVED: DOCKET NO: 05000

OPERATING MODE: 1 POWER LEVEL: 97

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR  
SECTION:  
50.73(a)(2)(iv)

LICENSEE CONTACT FOR THIS LER:

NAME: Thomas P. Sharkey, Supervising TELEPHONE: (314) 676-8336  
Engineer, Site Licensing

COMPONENT FAILURE DESCRIPTION:

CAUSE: X SYSTEM: SJ COMPONENT: 94 MANUFACTURER: C560  
REPORTABLE NPRDS: N

SUPPLEMENTAL REPORT EXPECTED: No

ABSTRACT:

On 5/23/92, at 1713 CDT, Steam Generator 'C' Feedwater Isolation Valve, AEFV0041, fast closed causing a low level Steam Generator reactor trip and subsequent Feedwater Isolation. The cause was the failure of a relay driver card in the Main Steam and Feedwater Isolation System Train 'A' Cabinet SA075A. The card was replaced. The plant was in Mode 1N at 97% power with the Reactor Coolant System at 585 degrees F and 2230 psig at the time of the trip. The licensed operators responded to the trip per plant procedures.

The plant was returned to Mode 1 - Power Operations at 1142 on 5/26/92. Corrective actions include testing of the relay driver card. An evaluation will be made on options to improve the reliability of the system.

END OF ABSTRACT

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**BASIS FOR REPORTABILITY:**

On 5/23/92, at 1713 CDT, Steam Generator (S/G) 'C' Feedwater Isolation Valve (FWIV) AEFV0041\_/(1) fast closed, causing a low level S/G reactor trip and subsequent Feedwater Isolation Signal (FWIS)\_/(2). There was no detrimental effect on plant equipment as a result of the actuations. There were no abnormal indications or degraded trends in equipment performance observed. This event is reportable per 10CFR50.73(a)(2)(iv) to report the Reactor Protection System and Engineered Safety Feature Actuations.

**CONDITION AT TIME OF EVENT:**

Mode 1 - Power Operations

97% reactor power

Reactor Coolant System (RCS): Temperature (average) - 585 degrees F;

Pressure - 2230 psig

**DESCRIPTION OF EVENT:**

On 5/23/92, at 1713 CDT, S/G 'C' FWIV AEFV0041 fast closed, causing a low level S/G reactor trip and subsequent FWIS. No maintenance activities were in progress at the time of the failure. The licensed operators responded to the trip per plant procedures. The plant was returned to Mode 1 - Power Operations at 1142 on 5/26/92.

**ROOT CAUSE:**

The root cause of the event was the failure of a relay driver card \_/(3) in the Main Steam and Feedwater Isolation System (MSFIS) train 'A' cabinet \_/(4) (SA075A). The cause of failure on this card is currently under investigation.

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**CORRECTIVE ACTIONS:**

The relay driver card was replaced. Testing of the relay driver card is

being conducted to determine why it failed. An evaluation will be made on options to improve the reliability of the system.

#### SAFETY SIGNIFICANCE:

This reactor trip was caused by the failure of the relay driver card. The reactor trip system and FWIVs performed as required. There was no detrimental effect on plant equipment as a result of the actuations. Therefore, there was no threat to the public health and safety.

#### PREVIOUS OCCURRENCES:

There have been two occurrences involving the failure of input buffer cards in the MSFIS cabinets. These events involved the fast closing of FWIVs which resulted in a FWIS and reactor trip. A faulty capacitor was identified as the cause of failure in these cards. The capacitors on MSFIS input buffer cards were upgraded. There have been no subsequent failure of MSFIS input buffer cards. The current investigation of the relay driver card does not indicate a capacitor failure, therefore, corrective action for these two previous occurrences could not have prevented this event.

LER 85-052-00, transmitted on 1/08/85, via ULNRC-1235.

LER 86-022-01, transmitted on 1/30/87, via ULNRC-1438.

#### FOOTNOTES:

The system and component codes below are from the IEEE Standards 805-1983 and 803A-1983, respectively.

1. System-SJ, Component-ISV

2. System-JC

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3. System-SJ, Component-94

Manufacturer - Consolidated Controls Corp.

Model Number - 6N232

Serial Number - 129

4. System-SJ, Component-CAB

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UNION  
ELECTRIC

Callaway Plant

June 22, 1992

U. S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, D. C. 20555

ULNRC-2653

Gentlemen:

DOCKET NUMBER 50-483  
CALLAWAY PLANT UNIT 1  
FACILITY OPERATING LICENSE NPF-30  
LICENSEE EVENT REPORT 92-007-00  
REACTOR TRIP ON LOW LEVEL STEAM GENERATOR 'C'  
DUE TO A FAILED RELAY DRIVER CARD WHICH  
CAUSED A FEEDWATER ISOLATION VALVE TO FAST CLOSE

The enclosed Licensee Event Report is submitted pursuant to  
10CFR50.73(a)(2)(iv) concerning Reactor Protection System, i.e. reactor  
trip, and Engineering Safety Feature Actuations, i.e. feedwater  
isolation.

J. D. Blosser  
Manager, Callaway Plant

JDB/TPS/MAH/lrj

Enclosure

cc: Distribution attached

Mailing Address: P.O. Box 620, Fulton, MO 65251

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